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Base Insert Device For Paper Bags

Claims

1. Base insert device for crossed base valve bags, for the formation of crossed bases in paper bags, said device comprising the following characteristics:

- ☐ Folding devices which introduce folds at the ends of the tubular sections from which the bags are produced
- ☐ One or more gluing stations, which apply glue to the regions of the folds for gluing and/or the sheets (5) provided for gluing to the bases in the gluing stations
- ☐ At least one pressing station in which the folded bases and the sheets (5) are brought into contact and glued

Said device is **characterized by**

at least one gluing station for the sheets and/or bases

- ☐ that comprises glue outlet openings (22) which may be selectively supplied with glue, whereby the selection of the glue outlet openings (22) defines the format of the glue application (6, 7, 8, 9),
- ☐ whereby said glue outlet openings (22) are provided with at least two application heads (1)
- ☐ of which at least one application head (1) may be displaced in a direction (y) orthogonal to the feed direction of the sheets (5) and/or the folded bases such that as a result of the displacement, a relative movement of the two application heads (1) occurs.

2. Base insert device pursuant to claim 1
characterized in that
in the gluing station every application head (1) is provided with an application plate (2) in which several glue outlet openings (22) are each arranged equidistantly at a distance (A) on one line in the direction (y) perpendicular to the feed direction of the sheets (5) and/or the folds of the bases, whereby the application plates (2) are arranged in such a way that the adjoining glue outlet openings (22) of two different application heads (1) can take up a different distance than the distance (A).
3. Base insert device pursuant to one of the preceding claims
characterized in that
in the gluing station, the two application heads (1) are displaceably supported on a common guide rail (13).
4. Base insert device pursuant to one of the preceding claims
characterized by
at least one spindle drive (15, 16) for providing the force for moving at least one displaceable application head (1).
5. Base insert device pursuant to claim 4
characterized in that
the spindle (15) can be driven using a motor.
6. Base insert device pursuant to one of the preceding claims
characterized by
means for automatically displacing the application head (1) and a control unit that controls the displacement.
7. Base insert device pursuant to claim 6
characterized in that
the target image of the glue application (6, 7, 8, 9) can be supplied to the control unit and that the control unit comprises means to calculate the target

positions of the glue traces (6, 7, 8, 9) to be extruded from the glue outlet openings based on the target image.

8. Base insert device pursuant to claim 6 or 7

characterized by

position sensors, which record the actual position of a spindle (15) and/or the rod (11) and notify the control unit.

9. Base insert device pursuant to one of the preceding claims

characterized in that

all the application heads (1) of the gluing station can be supplied with glue from one common glue supplying line, which guides the glue directly towards the application heads.

10. Base insert device pursuant to claim 9

characterized in that

the glue supplying line runs essentially in a direction (y) orthogonal to the feed direction of the sheets (5) and/or of the bases of the bags.

11. Base insert device pursuant to claim 9 or 10

characterized in that

the glue supplying line is designed as a guide rail (13).

12. Base insert device pursuant to one of the preceding claims

characterized by

guide elements (19) which guide the bag components to be glued in the region of the gluing station,

whereby the guide elements (19) can be displaced together with the displaceable application head (1).

13. Method for operating a base insert device pursuant to any of the preceding claims

characterized in that

in the gluing station, one application head (1) remains stationary with respect to the guide rail (13) during the format adjustment.

14. Process pursuant to claim 13

characterized in that

the format is defined by three application heads (1) of which the middle one remains stationary with respect to the guide rail (13) during the adjustment of the format.